

**IN THE CLAIMS**

1. A method of generating computer code for a web application, comprising:

receiving input files from a graphic designer, wherein the input files are at least one web application graphical user interface;

determining if an application framework code is available for the web application;

generating the application framework code, a business logic foundation code, an event handler skeleton and a graphical user interface code;

receiving web application business logic objects from a web developer;

receiving event handler methods from the web developer;

organizing the application framework code, the web application business logic objects and the event handler methods into web application source code;

compiling the web application source code;

receiving modified input files from the graphic designer;

compiling the modified input files at runtime; and

binding the compiled modified input files with the compiled web application source code at runtime.

2. A method of generating computer code for a web application, comprising:

receiving input files, wherein the input files are at least one web application graphical user interface;

generating an application framework code and an event handler skeleton;

receiving web application business logic objects;

receiving event handler methods;

organizing the application framework code, the web application business logic objects and the event handler methods into application source code; and

binding the web application source code with the input files at runtime.

3. The method of claim 2, wherein generating an event handler skeleton further comprises:

parsing at least one input file;

reviewing the parsed input file for a tag type, an attribute name and an attribute value; and

determining an event handler method based on the tag type, the attribute name and the attribute value.

4. The method of claim 2, wherein the web application source code is generated in an object-oriented programming language.

5. The method of claim 4, wherein the object-oriented programming language is Java.

6. The method of claim 4, wherein the object-oriented programming language is C++.

7. The method of claim 2, further comprising determining if the application framework code is available for the web application.

8. The method of claim 2, further comprising generating a business logic foundation code.

9. The method of claim 2, further comprising generating a graphical user interface code.

10. The method of claim 9, wherein generating a graphical user interface code is based on the input files.

11. The method of claim 2, wherein generating an event handler skeleton is based on the input files.

12. The method of claim 2, further comprising compiling the web application source code.

13. The method of claim 2, further comprising interpreting the web application source code.

14. The method of claim 2, wherein the input files are in XML format.

15. The method of claim 2, wherein the input files are in HTML format.

16. The method of claim 2, wherein the input files are in cHTML format.
17. The method of claim 2, wherein the input files are in WML format.
18. The method of claim 2, further comprising receiving modified input files.
19. The method of claim 18, further comprising compiling the modified input files at runtime.
20. The method of claim 19, further comprising binding the web application source code with the compiled modified input files at runtime.
21. The method of claim 20, wherein the modified input files are compiled into DOM objects at runtime.
22. The method of claim 18, further comprising interpreting the modified input files at runtime.
23. The method of claim 22, further comprising binding the web application source code with the interpreted modified input files at runtime.
24. The method of claim 2, further comprising generating application runtime properties.
25. The method of claim 2, further comprising generating application SQL statements.

26. The method of claim 2, wherein the application framework code comprises an application object and a servlet web application framework object.

27. A method of generating computer code for a web application, comprising:

receiving input files, wherein the input files are at least one web application graphical user interface;

retrieving an application framework code from an application directory;

generating an event handler skeleton;

receiving web application business logic objects;

receiving event handler methods;

organizing the application framework code, the web application business logic objects and the event handler methods into application source code; and

binding the web application source code with the input files at runtime.

28. The method of claim 27, further comprising retrieving a business logic foundation code.

29. The method of claim 27, further comprising generating a business logic foundation code.

30. The method of claim 27, wherein generating an event handler skeleton further comprises:

parsing at least one input file;  
reviewing the parsed input file for a tag type, an attribute name and an attribute value; and  
determining an event handler method based on the tag type, the attribute name and the attribute value.

31. The method of claim 27, wherein the web application source code is generated in an object-oriented programming language.

32. The method of claim 27, further comprising determining if the application framework code is available for the web application.

33. The method of claim 27, further comprising generating a graphical user interface code.

34. The method of claim 33, wherein generating a graphical user interface code is based on the input files.

35. The method of claim 27, wherein generating an event handler skeleton is based on the input files.

36. The method of claim 27, further comprising compiling the web application source code.

37. The method of claim 27, further comprising interpreting the web application source code.

38. The method of claim 27, wherein the input files are in XML format.
39. The method of claim 27, wherein the input files are in HTML format.
40. The method of claim 27, wherein the input files are in cHTML format.
41. The method of claim 27, wherein the input files are in WML format.
42. The method of claim 27, further comprising receiving modified input files.
43. The method of claim 42, further comprising compiling the modified input files at runtime.
44. The method of claim 43, further comprising binding the web application source code with the compiled modified input files at runtime.
45. The method of claim 42, further comprising interpreting the modified input files at runtime.
46. The method of claim 45, further comprising binding the web application source code with the interpreted modified input files at runtime.
47. The method of claim 27, wherein the application framework code comprises an application object and a servlet web application framework object.

48. A method of generating computer code for a web application, comprising:

- receiving input files, wherein the input files are at least one web application graphical user interface;
- generating an application framework code and an event handler skeleton;
- receiving web application business logic objects;
- receiving event handler methods;
- organizing the application framework code, the web application business logic objects and the event handler methods into web application source code;
- receiving modified input files; and
- binding the modified input files with the web application source code at runtime.

49. The method of claim 48, further comprising compiling the modified input files at runtime.

50. The method of claim 48, further comprising interpreting the modified input files at runtime.

51. The method of claim 48, wherein generating an event handler skeleton further comprises:

- parsing at least one input file;
- reviewing the parsed input file for a tag type, an attribute name and an attribute value; and



determining an event handler method based on the tag type, the attribute name and the attribute value.

52. The method of claim 48, wherein the web application source code is generated in an object-oriented programming language.

53. The method of claim 48, further comprising determining if the application framework code is available for the web application.

54. The method of claim 48, further comprising generating a business logic foundation code.

55. The method of claim 48, further comprising generating a graphical user interface code.

56. The method of claim 48, further comprising compiling the web application source code.

57. The method of claim 48, further comprising interpreting the web application source code.

58. The method of claim 48, wherein the input files are in XML format.

59. The method of claim 48, wherein the input files are in HTML format.

60. The method of claim 48, wherein the input files are in cHTML format.

61. The method of claim 48, wherein the input files are in WML format.

62. The method of claim 49, wherein the modified input files are compiled into DOM objects at runtime.

63. The method of claim 48, wherein the application framework code comprises an application object and a servlet web application framework object.

64. A method of generating computer code for a web application, comprising:

receiving input files, wherein the input files are at least one web application graphical user interface;

retrieving an application framework code from an application directory;

generating an event handler skeleton;

receiving web application business logic objects;

receiving event handler methods;

organizing the application framework code, the web application business logic objects and the event handler methods into web application source code;

receiving modified input files; and

binding the modified input files with the web application source code at runtime.

65. The method of claim 64, wherein generating an event handler skeleton further comprises:

parsing at least one input file;  
reviewing the parsed input file for a tag type, an attribute name and  
an attribute value; and  
determining an event handler method based on the tag type, the  
attribute name and the attribute value.

66. The method of claim 64, further comprising determining if the  
application framework code is available for the web application.

67. The method of claim 64, further comprising generating a business  
logic foundation code.

68. The method of claim 64, further comprising retrieving a business  
logic foundation code.

69. The method of claim 64, further comprising generating a graphical  
user interface code.

70. The method of claim 64, wherein generating an event handler  
skeleton is based on the input files.

71. The method of claim 64, wherein the input files are in XML format.

72. The method of claim 64, wherein the input files are in HTML format.

73. The method of claim 64, wherein the input files are in cHTML format.
74. The method of claim 64, wherein the input files are in WML format.
75. The method of claim 64, further comprising compiling the modified input files at runtime.
76. The method of claim 64, further comprising interpreting the modified input files at runtime.
77. The method of claim 64, wherein the application framework code comprises an application object and a servlet web application framework object.
78. A method of generating computer code for a web application, comprising:
- receiving a business logic foundation code, an event handler skeleton and a graphical user interface code;
  - preparing web application business logic objects based on the business logic foundation code; and
  - preparing event handler methods based on the event handler skeleton.
79. A system for generating computer code for a web application, comprising:

means for receiving input files from a graphic designer, wherein the input files are at least one web application graphical user interface;

means for determining if an application framework code is available for the web application;

means for generating the application framework code, a business logic foundation code, an event handler skeleton and a graphical user interface code;

means for receiving web application business logic objects from a web developer;

means for receiving event handler methods from the web developer;

means for organizing the application framework code, the web application business logic objects and the event handler methods into web application source code;

means for compiling the web application source code;

means for receiving modified input files from the graphic designer;

means for compiling the modified input files at runtime; and

means for binding the compiled modified input files with the compiled web application source code at runtime.

80. A system for generating computer code for a web application, comprising:

means for receiving input files, wherein the input files are at least one web application graphical user interface;

means for generating an application framework code and an event handler skeleton;

means for receiving web application business logic objects;

means for receiving event handler methods;

means for organizing the application framework code, the web application business logic objects and the event handler methods into application source code; and

means for binding the web application source code with the input files at runtime.

81. The system of claim 80, wherein means for generating an event handler skeleton further comprises:

means for parsing at least one input file;

means for reviewing the parsed input file for a tag type, an attribute name and an attribute value; and

means for determining an event handler method based on the tag type, the attribute name and the attribute value.

82. The system of claim 80, wherein the web application source code is generated in an object-oriented programming language.

83. The system of claim 82, wherein the object-oriented programming language is Java.

84. The system of claim 82, wherein the object-oriented programming language is C<sup>++</sup>.

85. The system of claim 80, further comprising means for determining if the application framework code is available for the web application.

86. The system of claim 80, further comprising means for generating a business logic foundation code.

87. The system of claim 80, further comprising means for generating a graphical user interface code.

88. The system of claim 87, wherein means for generating a graphical user interface code is based on the input files.

89. The system of claim 80, wherein means for generating an event handler skeleton is based on the input files.

90. The system of claim 80, further comprising means for compiling the web application source code.

91. The system of claim 80, further comprising means for interpreting the web application source code.

92. The system of claim 80, wherein the input files are in XML format.

93. The system of claim 80, wherein the input files are in HTML format.

94. The system of claim 80, wherein the input files are in cHTML format.
95. The system of claim 80, wherein the input files are in WML format.
96. The system of claim 80, further comprising means for receiving modified input files.
97. The system of claim 96, further comprising means for compiling the modified input files at runtime.
98. The system of claim 97, further comprising means for binding the web application source code with the compiled modified input files at runtime.
99. The system of claim 98, wherein the modified input files are compiled into DOM objects at runtime.
100. The system of claim 96, further comprising means for interpreting the modified input files at runtime.
101. The system of claim 100, further comprising means for binding the web application source code with the interpreted modified input files at runtime.
102. The system of claim 80, further comprising means for generating application runtime properties.



103. The system of claim 80, further comprising means for generating application SQL statements.

104. The system of claim 80, wherein the application framework code comprises an application object and a servlet web application framework object.

105. A system for generating computer code for a web application, comprising:

means for receiving input files, wherein the input files are at least one web application graphical user interface;

means for retrieving an application framework code from an application directory;

means for generating an event handler skeleton;

means for receiving web application business logic objects;

means for receiving event handler methods;

means for organizing the application framework code, the web application business logic objects and the event handler methods into application source code; and

means for binding the web application source code with the input files at runtime.

106. The system of claim 105, further comprising means for retrieving a business logic foundation code.

107. The system of claim 105, further comprising means for generating a business logic foundation code.

108. The system of claim 105, wherein means for generating an event handler skeleton further comprises:

means for parsing at least one input file;

means for reviewing the parsed input file for a tag type, an attribute name and an attribute value; and

means for determining an event handler method based on the tag type, the attribute name and the attribute value.

109. The system of claim 105, wherein the web application source code is generated in an object-oriented programming language.

110. The system of claim 105, further comprising means for determining if the application framework code is available for the web application.

111. The system of claim 105, further comprising means for generating a graphical user interface code.

112. The system of claim 111, wherein means for generating a graphical user interface code is based on the input files.

113. The system of claim 105, wherein means for generating an event handler skeleton is based on the input files.

114. The system of claim 105, further comprising means for compiling the web application source code.

115. The system of claim 105, further comprising means for interpreting the web application source code.

116. The system of claim 105, wherein the input files are in XML format.

117. The system of claim 105, wherein the input files are in HTML format.

118. The system of claim 105, wherein the input files are in cHTML format.

119. The system of claim 105, wherein the input files are in WML format.

120. The system of claim 105, further comprising means for receiving modified input files.

121. The system of claim 120, further comprising means for compiling the modified input files at runtime.

122. The system of claim 121, further comprising means for binding the web application source code with the compiled modified input files at runtime.

123. The system of claim 120, further comprising means for interpreting the modified input files at runtime.

124. The system of claim 123, further comprising means for binding the web application source code with the interpreted modified input files at runtime.

125. The system of claim 105, wherein the application framework code comprises an application object and a servlet web application framework object.

126. A system for generating computer code for a web application, comprising:

means for receiving input files, wherein the input files are at least one web application graphical user interface;

means for generating an application framework code and an event handler skeleton;

means for receiving web application business logic objects;

means for receiving event handler methods;

means for organizing the application framework code, the web application business logic objects and the event handler methods into web application source code;

means for receiving modified input files; and

means for binding the modified input files with the web application source code at runtime.

127. The system of claim 126, further comprising means for compiling the modified input files at runtime.

128. The system of claim 126, further comprising means for interpreting the modified input files at runtime.

129. The system of claim 126, wherein means for generating an event handler skeleton further comprises:

means for parsing at least one input file;

means for reviewing the parsed input file for a tag type, an attribute name and an attribute value; and

means for determining an event handler method based on the tag type, the attribute name and the attribute value.

130. The system of claim 126, wherein the web application source code is generated in an object-oriented programming language.

131. The system of claim 126, further comprising means for determining if the application framework code is available for the web application.

132. The system of claim 126, further comprising means for generating a business logic foundation code.

133. The system of claim 126, further comprising means for generating a graphical user interface code.

134. The system of claim 126, further comprising means for compiling the web application source code.

135. The system of claim 126, further comprising means for interpreting the web application source code.

136. The system of claim 126, wherein the input files are in XML format.

137. The system of claim 126, wherein the input files are in HTML format.

138. The system of claim 126, wherein the input files are in cHTML format.

139. The system of claim 126, wherein the input files are in WML format.

140. The system of claim 127, wherein the modified input files are compiled into DOM objects at runtime.

141. The system of claim 126, wherein the application framework code comprises an application object and a servlet web application framework object.

142. A system for generating computer code for a web application, comprising:

means for receiving input files, wherein the input files are at least one web application graphical user interface;

means for retrieving an application framework code from an application directory;

means for generating an event handler skeleton;

means for receiving web application business logic objects;

means for receiving event handler methods;

means for organizing the application framework code, the web application business logic objects and the event handler methods into web application source code;

means for receiving modified input files; and

means for binding the modified input files with the web application source code at runtime.

143. The system of claim 142, wherein means for generating an event handler skeleton further comprises:

means for parsing at least one input file;

means for reviewing the parsed input file for a tag type, an attribute name and an attribute value; and

means for determining an event handler method based on the tag type, the attribute name and the attribute value.

144. The system of claim 142, further comprising means for determining if the application framework code is available for the web application.

145. The system of claim 142, further comprising means for generating a business logic foundation code.

146. The system of claim 142, further comprising means for retrieving a business logic foundation code.

147. The system of claim 142, further comprising means for generating a graphical user interface code.

148. The system of claim 142, wherein means for generating an event handler skeleton is based on the input files.

149. The system of claim 142, wherein the input files are in XML format.

150. The system of claim 142, wherein the input files are in HTML format.

151. The system of claim 142, wherein the input files are in cHTML format.

152. The system of claim 142, wherein the input files are in WML format.

153. The system of claim 142, further comprising means for compiling the modified input files at runtime.

154. The system of claim 142, further comprising means for interpreting the modified input files at runtime.

155. The system of claim 142, wherein the application framework code comprises an application object and a servlet web application framework object.

156. A system for generating computer code for a web application, comprising:



means for receiving a business logic foundation code, an event handler skeleton and a graphical user interface code;

means for preparing web application business logic objects based on the business logic foundation code; and

means for preparing event handler methods based on the event handler skeleton.

157. An article of manufacture for causing a computer to generate computer code for a web application, comprising:

means for causing the computer to receive input files from a graphic designer, wherein the input files are at least one web application graphical user interface;

means for causing the computer to determine if an application framework code is available for the web application;

means for causing the computer to generate the application framework code, a business logic foundation code, an event handler skeleton and a graphical user interface code;

means for causing the computer to receive web application business logic objects from a web developer;

means for causing the computer to receive event handler methods from the web developer;

means for causing the computer to organize the application framework code, the web application business logic objects and the event handler methods into web application source code;

means for causing the computer to compile the web application source code;

means for causing the computer to receive modified input files from the graphic designer;

means for causing the computer to compile the modified input files at runtime; and

means for causing the computer to binding the compiled modified input files with the compiled web application source code at runtime.

158. An article of manufacture for causing a computer to generate computer code for a web application, comprising:

means for causing the computer to receive input files, wherein the input files are at least one web application graphical user interface;

means for causing the computer to generate an application framework code and an event handler skeleton;

means for causing the computer to receive web application business logic objects;

means for causing the computer to receive event handler methods;

means for causing the computer to organize the application framework code, the web application business logic objects and the event handler methods into application source code; and

means for causing the computer to bind the web application source code with the input files at runtime.

159. An article of manufacture for causing a computer to generate computer code for a web application, comprising:

means for causing the computer to receive input files, wherein the input files are at least one web application graphical user interface;

means for causing the computer to retrieve an application framework code from an application directory;

means for causing the computer to generate an event handler skeleton;

means for causing the computer to receive web application business logic objects;

means for causing the computer to receive event handler methods;

means for causing the computer to organize the application framework code, the web application business logic objects and the event handler methods into application source code; and

means for causing the computer to bind the web application source code with the input files at runtime.

160. An article of manufacture for causing a computer to generate computer code for a web application, comprising:

means for causing the computer to receive input files, wherein the input files are at least one web application graphical user interface;

means for causing the computer to generate an application framework code and an event handler skeleton;

means for causing the computer to receive web application business logic objects;

means for causing the computer to receive event handler methods;

means for causing the computer to organize the application framework code, the web application business logic objects and the event handler methods into web application source code;

means for causing the computer to receive modified input files; and

means for causing the computer to bind the modified input files with the web application source code at runtime.

161. An article of manufacture for causing a computer to generate computer code for a web application, comprising:

means for causing the computer to receive input files, wherein the input files are at least one web application graphical user interface;

means for causing the computer to retrieve an application framework code from an application directory;

means for causing the computer to generate an event handler skeleton;

means for causing the computer to receive web application business logic objects;

means for causing the computer to receive event handler methods;

means for causing the computer to organize the application framework code, the web application business logic objects and the event handler methods into web application source code;

means for causing the computer to receive modified input files; and

means for causing the computer to bind the modified input files with the web application source code at runtime.

162. A server for generating computer code for a web application, comprising:

a storage device; and

a processor connected to the storage device, the storage device storing a program for controlling the processor;

the processor operative with the program to:

receive input files from a graphic designer, wherein the input files are at least one web application graphical user interface;

determine if an application framework code is available for the web application;

generate the application framework code, a business logic foundation code, an event handler skeleton and a graphical user interface code;

receive web application business logic objects from a web developer;

receive event handler methods from the web developer;

organize the application framework code, the web application business logic objects and the event handler methods into web application source code;

compile the web application source code;

receive modified input files from the graphic designer;

compile the modified input files at runtime; and  
bind the compiled modified input files with the compiled web application source code at runtime.

163. A server for generating computer code for a web application, comprising:

- a storage device; and
- a processor connected to the storage device, the storage device storing a program for controlling the processor;

the processor operative with the program to:

- receive input files, wherein the input files are at least one web application graphical user interface;
- generate an application framework code and an event handler skeleton;
- receive web application business logic objects;
- receive event handler methods;
- organize the application framework code, the web application business logic objects and the event handler methods into application source code; and
- bind the web application source code with the input files at runtime.

164. A server for generating computer code for a web application, comprising:

a storage device; and

a processor connected to the storage device, the storage device storing a program for controlling the processor;

the processor operative with the program to:

receive input files, wherein the input files are at least one web application graphical user interface;

retrieve an application framework code from an application directory;

generate an event handler skeleton;

receive web application business logic objects;

receive event handler methods;

organize the application framework code, the web application business logic objects and the event handler methods into application source code; and

bind the web application source code with the input files at runtime.

165. A server for generating computer code for a web application, comprising:

a storage device; and

a processor connected to the storage device, the storage device storing a program for controlling the processor;

the processor operative with the program to:

receive input files, wherein the input files are at least one web application graphical user interface;

generate an application framework code and an event handler skeleton;

receive web application business logic objects;

receive event handler methods;

organize the application framework code, the web application business logic objects and the event handler methods into web application source code;

receive modified input files; and

bind the modified input files with the web application source code at runtime.

166. A server for generating computer code for a web application, comprising:
- a storage device; and
  - a processor connected to the storage device, the storage device storing a program for controlling the processor;
- the processor operative with the program to:
- receive input files, wherein the input files are at least one web application graphical user interface;
  - retrieve an application framework code from an application directory;
  - generate an event handler skeleton;



receive web application business logic objects;  
receive event handler methods;  
organize the application framework code, the web  
application business logic objects and the event handler methods into web application  
source code;

receive modified input files; and  
bind the modified input files with the web application source  
code at runtime.